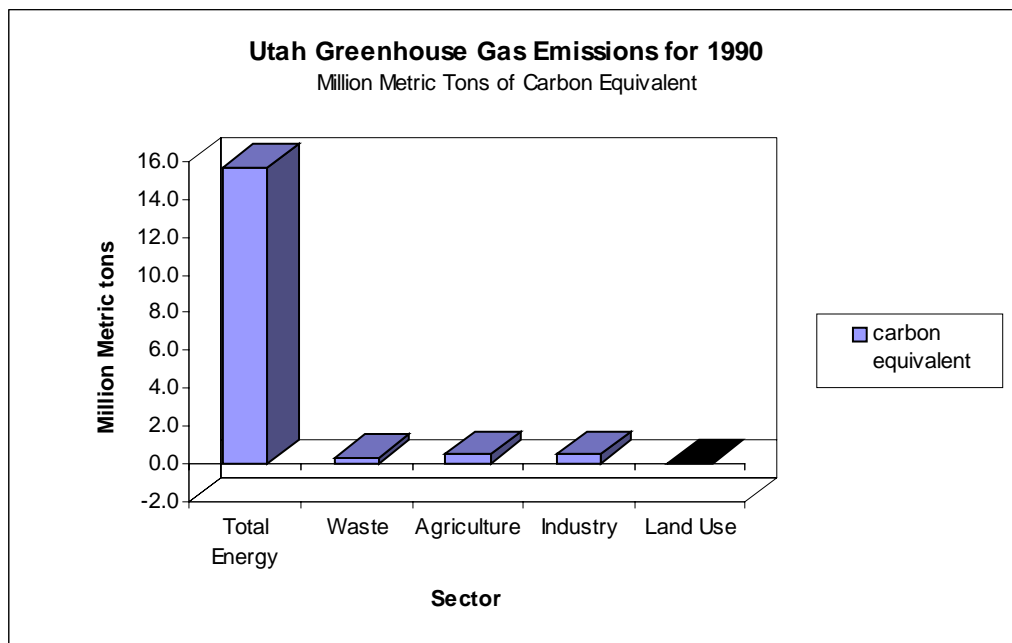


## UTAH GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The report *“Utah Greenhouse Gas Inventory, 1990 and 1993”* provides a detailed inventory of greenhouse gas emissions and sinks for Utah in 1990. Emissions were estimated using methods from EPA's 1995 guidance document ***State Workbook: Methodologies for Estimating Greenhouse Gas Emissions***. In 1990, Utah emitted 16.9 million metric tons of carbon equivalent (MMTCE). In addition, Utah estimated emissions of 0.4 MMTCE from biomass fuels and from other sources not included in the workbook. Emissions from these sources are not included in the reported total or the table below.<sup>1</sup>

The principal greenhouse gas was carbon dioxide, comprising 53.4 million metric tons (14.6 MMTCE). Other emissions included methane, with 0.4 million metric tons (2.3 MMTCE) and 1 thousand metric tons of nitrous oxide (0.1 MMTCE).

<sup>1</sup> Note that the state of the art emission inventory method has advanced since Utah completed its inventory; therefore, we have made the following adjustments to Utah's emission estimates. First, we excluded emission estimates for sources not covered by the most recent inventory guidance (<http://www.epa.gov/ttnchie1/eiip/techrep.htm#green>). These emissions include carbon dioxide and methane emissions from big game animals. Second, we used updated values for global warming potentials.

### Utah Greenhouse Gas Emissions for 1990

BY SECTOR	CO <sub>2</sub> (MMTCE)	Methane (MMTCE)	Nitrous Oxide (MMTCE)	HFCs, PFCs, and SF6 (MMTCE)	Total GHG Emissions (MMTCE)
Energy - Residential	0.7	*	*	*	0.7
Energy - Commercial	0.4	*	*	*	0.4
Energy - Industrial	2.2	*	*	*	2.2
Energy - Transport	2.8	*	*	*	2.8
Energy - Utility	8.1	*	*	*	8.1
Energy - Exported Electricity	*	*	*	*	*
Energy - Other	*	*	*	*	*
<b>Total Energy</b>	<b>14.2</b>	<b>1.5</b>	<b>*</b>	<b>*</b>	<b>15.7</b>
<b>Waste</b>	<b>*</b>	<b>0.3</b>	<b>*</b>	<b>*</b>	<b>0.3</b>
<b>Agriculture</b>	<b>*</b>	<b>0.4</b>	<b>0.03</b>	<b>*</b>	<b>0.5</b>
<b>Industry</b>	<b>0.4</b>	<b>*</b>	<b>0.1</b>	<b>*</b>	<b>0.5</b>
<b>Land Use</b>	<b>-0.003</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>-0.003</b>
<b>Total</b>	<b>14.6</b>	<b>2.3</b>	<b>0.1</b>	<b>*</b>	<b>16.9</b>

All emissions are reported in million metric tons of carbon dioxide equivalent (MMTCE).

An asterisk (\*) indicates that emissions of the gas from this sector were zero, insignificant, or not reported.

Emissions due to coal mining and extraction of natural gas and oil are included in the energy – other figures, and emissions from biofuel combustion are excluded.

The major source of carbon dioxide emissions was fossil fuel combustion (97%), with minor emissions from cement and lime production and limestone use. Sources of methane emissions were coal mining (51%), domesticated animals (21%), natural gas/oil extraction (15%), and landfills (13%). Nitrous oxide emissions were attributable to nitric acid production (72%) and fertilizer use (28%).

Utah's emissions in 1990 were 9.8 MTCE per capita, compared to 1990 U.S. emissions of 6.4 MTCE per capita.